

REMARKS

This application contains claims 1-34. Claims 1, 12, 22 and 30-32 are hereby amended. No new matter has been introduced. Reconsideration is respectfully requested.

Applicant thanks Examiners Schlaifer and Hong for the courtesy of a personal interview with Applicant's representative, Daniel Kligler (Reg. No. 41,120) at the USPTO on March 17. At the interview, Applicant's representative discussed the distinction of the inventions covered by independent claims 1 and 30 over the cited art. In particular, Applicant's representative explained the difference in the use of the term "domains" between the present patent application, as recited in claims 1, 12 and 22, and the cited art, particularly Kwang et al. (U.S. Patent 5,862,327). Applicant's representative also pointed out the distinction between the method recited in claim 30 and the methods of Sarkar (U.S. Patent 6,418,448). Possible amendments to clarify these distinctions in the claims were also discussed.

As noted in previous amendments filed in this case and in the specification of the present patent application, Applicant has defined the term "domains" to refer to different global application fields. Applicant gave the examples of computer system performance evaluation domain and customer relationship management as domains for which XML DTDs were known in the art (page 3, lines 3-7, in the specification). In order to further clarify the meaning of the term "domains" and the state of the relevant art at the time of filing of this application, the present amendment includes an amendment to the specification citing additional domains for which XML DTDs were known, such as the healthcare and telecommunications domains. Applicant will submit an Information Disclosure Statement with publications relating to these DTDs.

Claims 1, 2, 12, 13 and 21-23 were rejected under 35 U.S.C. 103(a) over Srivastava et al. (U.S. Patent 6,549,922) in view of Odom et al. (U.S. Patent 5,842,213) and further in view of Kwang. Claims 1, 12 and 22 have been amended to clarify the distinction of the present invention over the cited art.

Srivastava describes an extensible framework for the automatic extraction and transformation of metadata from media files into logical annotations. A type-

specific parsing module, based on the mimetype of the media file in question, extracts the metadata from each file. The annotations from the media files are formatted into a standardized form, which is then mapped into a database schema (abstract).

Odom describes a method for modeling, storing and transferring data in a non-hierarchical, non-integrated neutral form. This method is said to enable the direct integration of separate data models and their data (abstract). The method defines independent scope segment models and corresponding sets of information, which are automatically linked so as to function as the equivalent of a single model and set of information (col. 5, line 66 - col. 6, line 7).

Kwang describes an activity-based system for long-lived transactions between disconnected servers and clients (abstract). Users of the system can connect to a server, download their available activities, disconnect from the server and work on the activities by processing the information (col. 2, lines 41-43). Each activity uses only a small part of an enterprise database. Data subsetting is therefore used to define an activity-specific domain and schema for data manipulation (col. 9, lines 37-46). In other words, the term “domain,” as used by Kwang, refers to a certain subset of an enterprise database that is used by a particular user in a particular activity. Kwang’s “domains” are all parts of the same database and thus all belong to the same domain in the sense in which the term “domain” is used in the present patent application.

Claim 1 has been amended to clarify and explicitly limit the meaning of “domain,” in the context of the present invention, by specifying a list of domains for which schemata are specified. The claim recites a method for processing source data from diverse sources in a selected data domain using a unified schema. The schema is selected specifically for the domain in question, from among multiple schemata that are specific to particular domains that are listed in the claim: computer system performance evaluation, customer relationship management, healthcare, and telecommunications. This sense of the term “domain,” extending over an entire application field, is very different from that used by Kwang, for whom a “domain” is simply a subset of a larger database.

The cited art neither teaches nor suggests a method for processing source data based on specifying a unified schema from among the different domains recited in claim 1. Neither Srivastava nor Odom mentions the use of multiple, different schemata for different domains at all. The “domains” for which Kwang provides his schemata are simply subsets of a single database, within a single “domain” of the type defined by claim 1. Therefore, Kwang could not have led a person of ordinary skill in the art to arrive at the claimed method, in which multiple schemata are provided for specific, diverse domains. Applicant thus believes that claim 1, as amended, is patentable over the cited art. In view of the patentability of claim 1, claim 2, which depends from claim 1, is believed to be patentable, as well.

Independent claims 12 and 22 recite apparatus and a computer software product, respectively, which operate on principles similar to the method of claim 1. These claims have been amended in similar fashion to claim 1, and are therefore believed to be patentable for the reasons stated above. In view of the patentability of claims 12 and 22, claims 13, 21 and 23, which depend from these independent claims, are also believed to be patentable.

Claims 3-11, 14-20 and 24-29 were rejected under 35 U.S.C. 103(a) over Srivastava in view of Odom and Kwang and further in view of one or more of Call (U.S. Patent 6,154,738), Draper (U.S. Patent 6,449,620), Kuwahara (U.S. Patent 6,202,072), Motoyama (U.S. Patent 5,504,891), Cianfrocca (U.S. Patent 6,088,796) and Kleinerman (U.S. Patent 6,041,365). Each of these claims depends from one of independent claims 1, 12 and 22. In view of the patentability of the amended independent claims, as explained above, claims 3-11, 14-20 and 24-29 are also believed to be patentable.

Claims 30-34 were rejected under 35 U.S.C. 103(a) over Srivastava in view of Odom and Kwang and further in view of Sarkar. Applicant has amended independent claims 30-32, as discussed in the interview, in order to further clarify the distinction of the present invention over the cited art.

Sarkar describes a system for navigation through multiple XML/RDF documents using implicitly-generated queries (abstract). The documents may be addressed using SQL queries (col. 5, lines 59-67). Sarkar’s claim 13 (col. 26, lines 1-42) includes steps of preparing and executing SQL queries, while claim 14 (col.

26, lines 43-50, cited by the Examiner) states that such queries may be addressed to various types of databases, data stores and XML/RDF documents.

Claim 30 recites a method for processing source data from diverse sources, in which source data are mapped to a markup language, based on a unified schema, responsively to a query in the markup language. The claim has been amended to clarify that the source data exist in diverse formats, and that the mapping from the diverse formats to the unified schema is carried out when the query is received. In other words, the unified data created by the method of claim 30 are not held as a static database, but are rather created dynamically when required by a particular query. Thus, although the data are held in diverse formats, the query reply comprises unified data in the markup language. This amendment is supported in the specification on page 12, lines 5-17.

Although Sarkar describes the generation of XML/RDF documents from documents of other types (for example, in col. 9, lines 44-46), he neither teaches nor suggests that documents be mapped dynamically from diverse formats to a markup language in response to queries when the queries are received, as required by claim 30. Rather, as stated clearly in the abstract, Sarkar is concerned with assisting users in “navigation through multiple documents in Extensible Markup Language [XML] and Resource Description Framework [RDF] to inspect data/metadata...,” i.e., Sarkar assumes that the documents already exist in XML/RDF before the user submits a query. (See, for example, Sarkar’s Fig. 1.) He provides the user with a tool for implicit generation of queries in SQL, which then retrieve the desired information from the XML/RDF documents.

In rejecting claim 30, the Examiner stated that “Sarkar may be considered to map the source data to the query upon receiving the query... in that the mapping is not completed until the query is [received]...” This reading contradicts the sense of Sarkar’s abstract and other portions of Sarkar that deal with query handling. If the Examiner still maintains this position in light of the amendment and explanation given above, Applicant requests that the Examiner point out the specific passages in Sarkar that support this position.

To summarize, Applicant respectfully submits that the cited art neither teaches nor suggests the step of “upon receiving the query, mapping the source data

from at least one of the diverse formats to the unified schema responsively to the query....," as recited in claim 30. Therefore, claim 30, as amended, is believed to be patentable over the cited art.

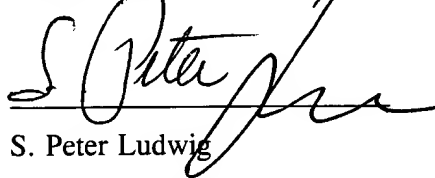
Independent claims 31 and 32 recite apparatus and a computer software product, respectively, which operate on principles similar to the method of claim 30. These claims have been amended in similar fashion to claim 30, and are therefore believed to be patentable for the reasons stated above. In view of the patentability of claim 32, claims 33 and 34, which depend from claim 32, are believed to be patentable, as well.

Applicant has studied the additional references made of record by the Examiner, and believes the claims in the present patent application to be patentable over these references, as well, whether the references are taken individually or in any combination.

Applicant believes the amendments and remarks presented hereinabove to be fully responsive to all of the grounds of rejection raised by the Examiner. In view of these amendments and remarks, Applicant respectfully submits that all of the claims in the present application are in order for allowance. Notice to this effect is hereby requested.

Date: April 19, 2005

Respectfully submitted,

A handwritten signature in black ink, appearing to read "S. Peter Ludwig", written over a horizontal line.

S. Peter Ludwig

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